

Machine Model 3D	AFM-3DH6	AFM-3DH8	AFM-3DH10	AFM-3DH12	AFM-3DH14	AFM-3DH16
Machine Model 2D	AFM-2DH6	AFM-2DH8	AFM-2DH10	AFM-2DH12	AFM-2DH14	AFM-2DH16
Wire Diameter Range (Millimeters)	2mm - 6.35mm	3mm - 8mm	4mm - 10mm	4mm - 12mm	6mm - 14mm	6mm - 16mm
— " — (Inches)	0.079" - 0.250"	0.118" - 0.315"	0.160" - 0.394"	0.160" - 0.472"	0.250" - 0.550"	0.250" - 0.630"
Max. Wire Tensile At Max. Wire Diameter	620 N/mm <sup>2</sup>	620 N/mm <sup>2</sup>	620 N/mm <sup>2</sup>	620 N/mm <sup>2</sup>	620 N/mm <sup>2</sup>	620 N/mm <sup>2</sup>
— " — (kPSI)	90 kPSI	90 kPSI	90 kPSI	90 kPSI	90 kPSI	90 kPSI
Max. Wire Length (Meters) *	4.2m	4.2m	4.2m	4.2m	4.2m	4.2m
— " — (Feet) *	13.78"	13.78"	13.78"	13.78"	13.78"	13.78"
Center Clamp Width (Millimeters)	65mm	65mm	85mm	97mm	130mm	130mm
— " — (Inches)	2.6"	2.6"	3.4"	3.8"	5.1"	5.1"

### Performance Specifications

#### Feeder w/Rotary Straightener Option (Rsx)

Wire Feed Resolution (precision) (Millimeters)	+/- 0.006mm	+/- 0.006mm	+/- 0.006mm	+/- 0.006mm	+/- 0.006mm	+/- 0.006mm
Wire Feed Resolution (precision) (Inches)	0.0002"	0.0002"	0.0002"	0.0002"	0.0002"	0.0002"
Std. wire feed speed (Meters)	55 m/min	55 m/min	50 m/min	50 m/min	45 m/min	45 m/min
Std wire feed speed (Feet)	180' f/min	180' f/min	165' f/min	165' f/min	147' f/min	147' f/min

#### Benders

Bender Resolution (precision)	0.0005°	0.0005°	0.0005°	0.0005°	0.0005°	0.0005°
Max Bender speed	1600°/sec	1800°/sec	1100°/sec	1100°/sec	1100°/sec	950°/sec
Max Bender angle	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited

#### Bender & Center Clamp Slides\*\*\*\*

Carriage Resolution (Millimeters)	0.01mm	0.01mm	0.01mm	0.01mm	0.01mm	0.01mm
— " — (Inches)	0.0004"	0.0004"	0.0004"	0.0004"	0.0004"	0.0004"
Max. Carriage speed (Meters/Sec)	2	2	2	1.5	1	1
— " — (Inches/Sec)	79	79	79	60	40	40
Max. Carriage Travel (Millimeters)	3050mm	3000mm	2910mm	2850mm	2750mm	2700mm
— " — (Inches)	120"	118"	115"	112"	108"	106"

#### Center Clamp Rotation/3D Models

Rotation-Axis resolution (precision) (Degrees)	0.05°	0.05°	0.05°	0.05°	0.05°	0.05°
Max. Rotation Axis speed (Degrees/Sec)	1000	1000	1000	1000	1000	1000
Max. Rotation-Axis rotation, Clamped (Degrees)	230°	230°	230°	230°	230°	230°
Max. Rotation-Axis rotation, Program (Degrees)	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited

#### Turret Option (BDTx)

Turret Axis ToolChange time	300 mSec	300 mSec	350 mSec	350 mSec	400 mSec	400 mSec
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#### Set-Up Time

Same Wire Diameter	5 minutes	5 minutes	5 minutes	5 minutes	5 minutes	5 minutes
Change feeder rollers & Bending tools	30 minutes	30 minutes	30 minutes	30 minutes	30 minutes	40 minutes

#### Power Consumption, Electrical & Air Requirements

Average Power Consumption (KW/h)**	1.6	1.9	2.0	2.2	2.5	2.5
Electrical requirement	50/60 Hz	380V or 460V, 3 phase - all models***				
Installed Power	37KVA	41KVA	45KVA	48KVA	56KVA	56KVA
Air requirements	100 PSI @ 2 SCFM - all models					

#### Dimensions & Weight (Machine weight only / not for shipping)

Width, Depth & Height (meters)	7.4m x 1.50m x 2m					
— " — (feet)	24ft x 5ft x 6.4ft					
Gross weight (Kg)	3902 Kg	3970 Kg	4220 Kg	4401 Kg	5399 Kg	5672 Kg
Gross weight (Lbs)	8600 Lbs	8750 Lbs	9300 Lbs	9700 Lbs	11900 Lbs	12500 Lbs

\* Other sizes available by custom order.

\*\* Power Consumption Data is measured on average production.

\*\*\* Specify on Order.

\*\*\*\* 3D models w/ PCCx Option.

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# ACCIFORM MODULAR DOUBLE HEAD BENDERS

AFM-XDH6  
AFM-XDH8  
AFM-XDH10  
AFM-XDH12  
AFM-XDH14  
AFM-XDH16



AFM-3DH shown without safety barrier for display purposes.

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WWW.AIMMACHINES.COM



Automated Industrial Machinery, Inc.  
502 S. Vista Avenue, Addison IL 60101-4423, U.S.A.  
Phone: +1(630)458-0008 Fax: +1(630)458-0730  
e-mail: sales@aimmachines.com

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#### AIM in Europe

68th Km N. Rd Athens - Lamia, Paleohori  
P.O. Box 36, 32 009, GREECE  
Phone: +30 226 205 8900 Fax: +30 22620 59231  
e-mail: sales@aimeuropesa.com  
www.aimeuropesa.com



Automated Industrial Machinery, Inc.



# AccuFORM MODULAR DOUBLE HEAD BENDERS



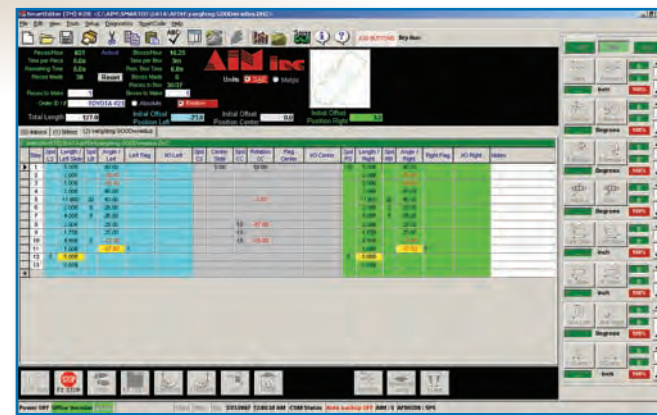
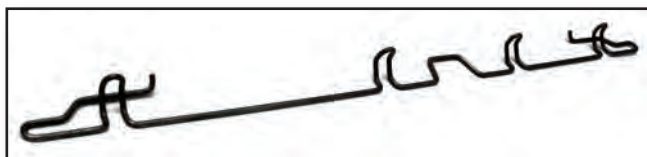
AFM-3DH shown without safety barrier for display purposes.

### Two Benders double the capabilities...

The AFM-DH line of equipment is designed with the old four-slide technology in mind but without the time consuming intricate setups, costly tooling, and the need for an expert operator. The DH or "Double Head" machine has two individual bending heads. Each bending head positions along a straight wire and bends it according to pre-programmed data. The operator can manually set a straight pre-cut wire to the bender or an automatic wire feeder module can be used to feed the wire through a straightener, cutter, and hopper. There is also an automatic gripper module (3D option) that can rotate and hold the straight wire while it is getting bent. After the part is complete, it is ejected to a part holder or removed via an optional robotic arm.



Highest Performance Double Head Benders with Optional Programmable Center Clamp



### Simple Programming Interface.

SmartEditor® helps figure out machine movements. User only needs to add feed length, bend angle, radius size & tool configuration

### Multiple operations at the same time... save time!

The AFM-DH machine has up to five independent coordinate systems:

- Feeder / Hopper
- Left Bender and Slide
- Right Bender and Slide
- Rotation and Center Slide
- Welding Module

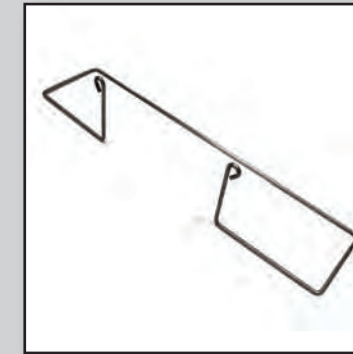
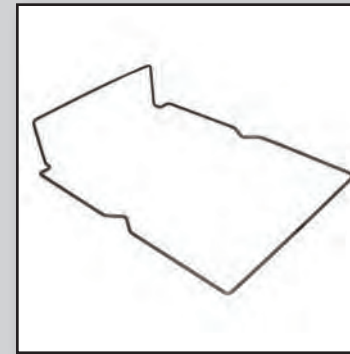
Since all coordinate systems are independent to each other, they all can work simultaneously, synchronized by the master center slide coordinate. All of the above coordinates are simple set ups via AIM's exclusive SmartEditor™ software.

All required algorithms needed are generated automatically. There is no need for complex trajectory calculations, nor any motion control programming. The operator enters lengths and angles that comprise the desired part and SmartEditor™ does all the rest. For the more advanced users SmartEditor™ allows text entry for each step.

AIM's hallmark machine building skills and construction techniques provide for the most rigid structure yielding longest industry machine life. The extreme cycle speeds that can be reached are a direct result of the super strong machine structure incorporating a special design for improved stability, while minimizing vibrations, increasing speeds, and accuracy.

### Innovation & Revolution...

AIM's programmable CNC steel wire bending machines have revolutionized the wire bending process. The AccuForm line dramatically increases productivity yet has the simplest operator interface while incorporating advanced servo technology.



### High Tech Bending Heads

Each Bending Head can be programmed to provide 8 moves and directions

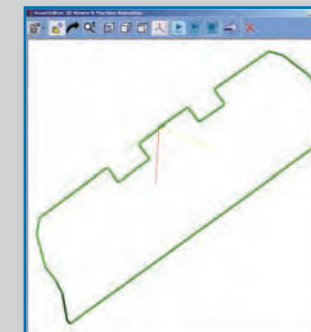
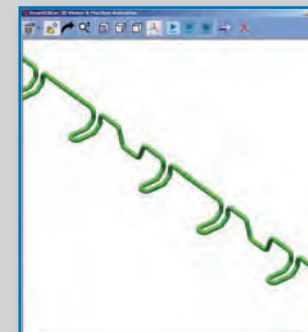
- Left and right, positioning parallel to the wire, locating the position of a bend
- Clockwise and counter-clockwise to bend the wire
- Up or down (recessing for clearance between bends)
- Bending Pin up or down that allows for clearance between bends, without having to lower the bending head
- Bending head Wire Clamp rotation (extend or retract), which helps to guide the wire while bending. When distances are critical, the bending head wire clamp can be programmed to swing away allowing for smaller bend to bend distance
- Bending head Wire Clamp up or down, programmable for flexibility
- Bending head Wire Clamp open or close, to allow wire engagement or disengagement
- Bending head Wire Clamp engage or relieve

The Turret option adds another two programmable moves:

- Bender turret (or tool-cluster) for programmable bend radii
- Center Wire Clamp

The Center Wire Clamp option can be programmed to move back and forward, providing more programming flexibility and smaller bend to bend distance. Programmable moves:

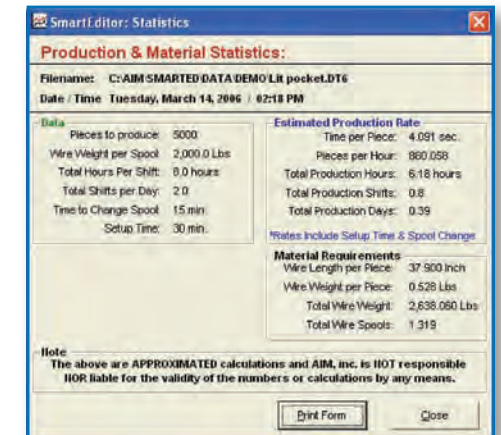
- Center Clamp engage or disengage for wire clamping
- Center Clamp extend or retract, allowing the user to program for small parts and smaller bend to bend distances
- Part eject, in or out, for part ejection
- The three dimensional option (AFM3DHX machines) adds another axis to the system, allowing the wire clamp to be rotated through the program



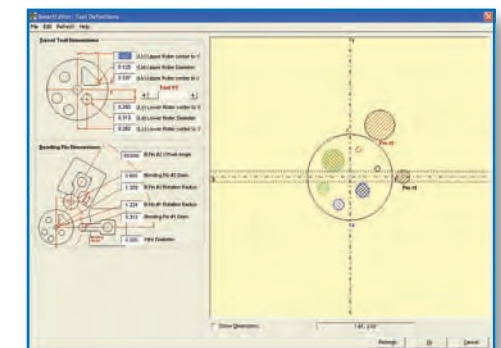
Production Animation with Collision Detection makes Programming Seamless!

For a complete automated production line the following options can be added:

- Automatic wire feeder with Rotary straightener module
  - Automatic speed wire payoff unit for up to 2,000 Kgr (4,400 Lbs)
  - Wire pre-straightener
  - Opposing Dual Arbor Rotary wire straightener
  - Wire Feeder
  - Wire length measuring device
  - Pneumatic or Hydraulic wire cutter
  - Straight wire transfer mechanism
- Automatic wire magazine feed with Hopper module
  - Wire magazine for 50 wire length pieces, 4m long (pre-cut) at 8mm wire diameter, can fit more pieces with smaller diameter wires
  - Wire transfer mechanism
- Turret Benders Programmable center turret for multiple radii
  - This option adds an additional 2 axes onto the machine to program up to 4 different radii per bender
- Programmable position of the Center Clamp
  - Complex part programming with a 3m maximum stroke along carriage. Helps minimize setup time by automatically recalling position of center clamp within every program
- Wire piece cut-off at the right of the center clamp
  - Ideal for making high quantities of symmetrical parts. On 6mm machines or larger, this includes hydraulic unit for wire cutoff. Minimum cut length on each end is 2 times the wire diameter. Requires Rotary Straightener module



Instant Production Estimates and Material Consumption



Graphic Representation of Installed Tools on Machine